

Circuit Arrangement

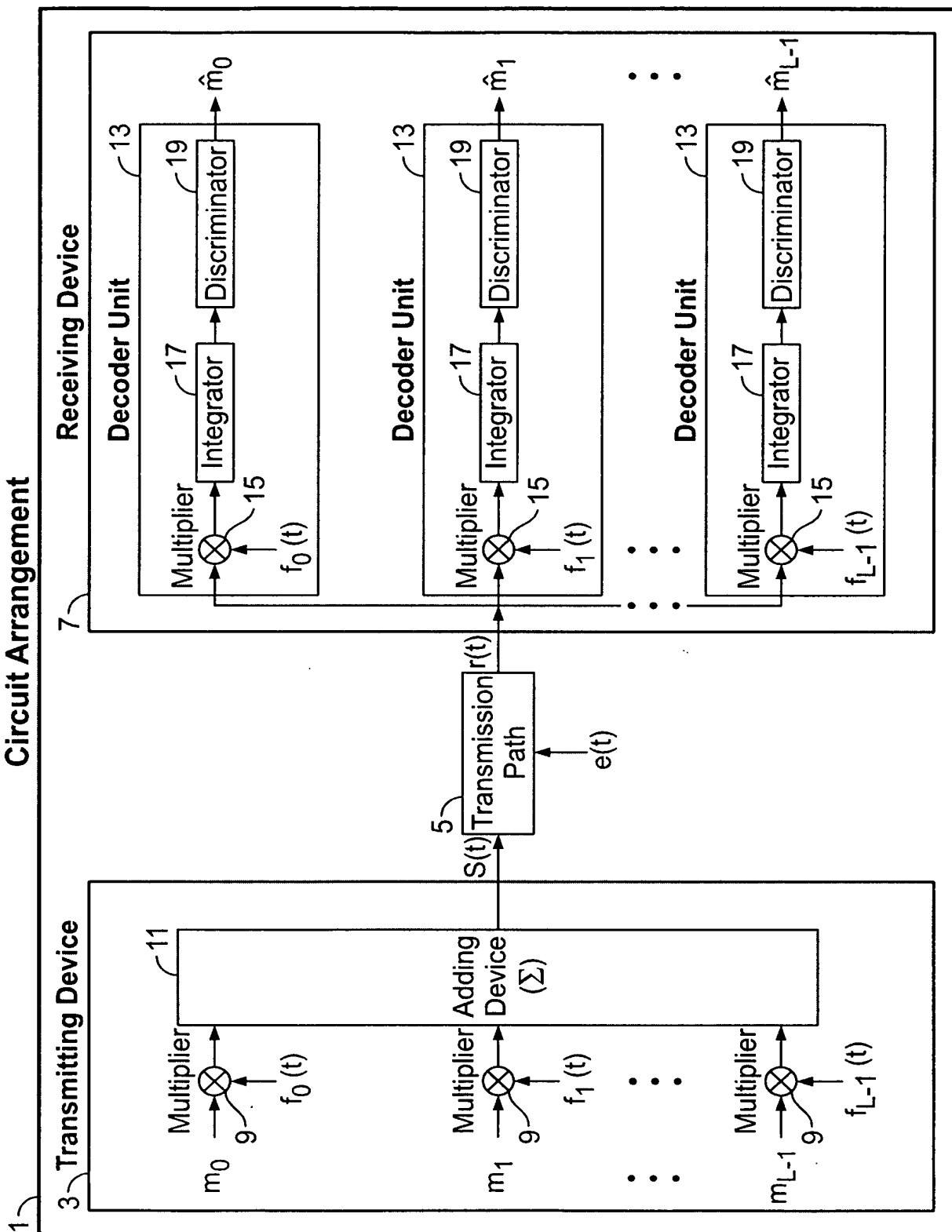


FIG. 1

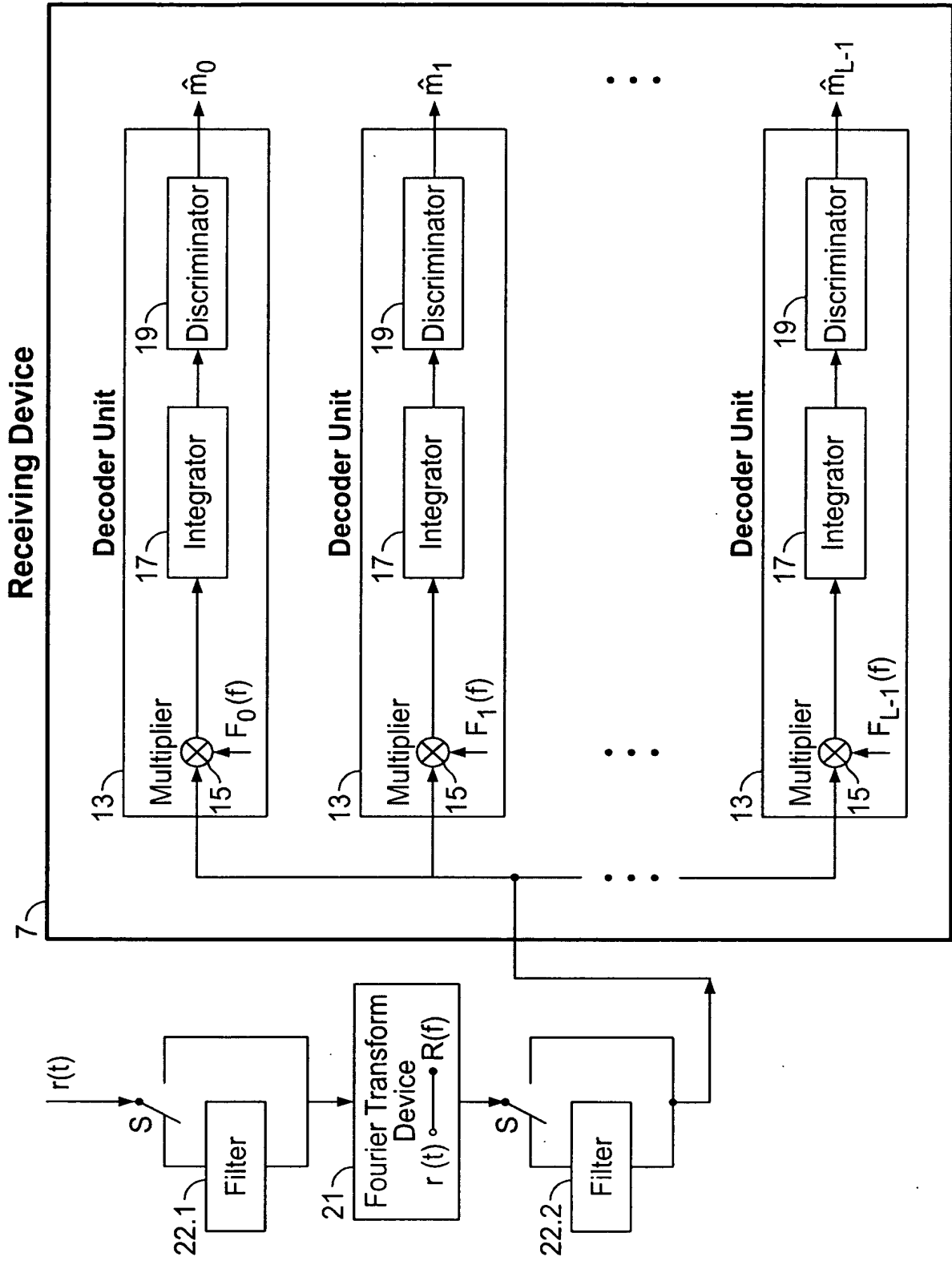


FIG. 2

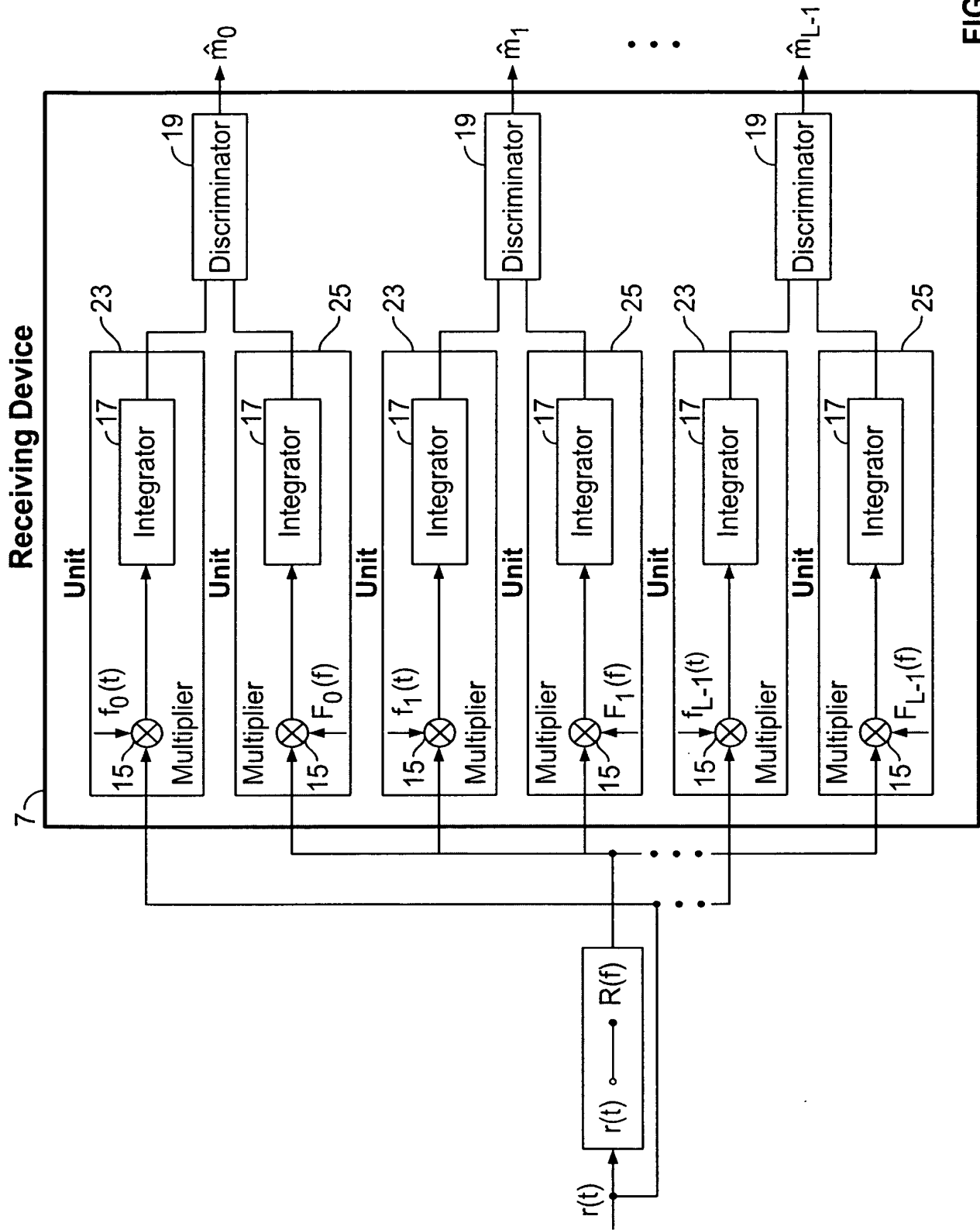


FIG. 3

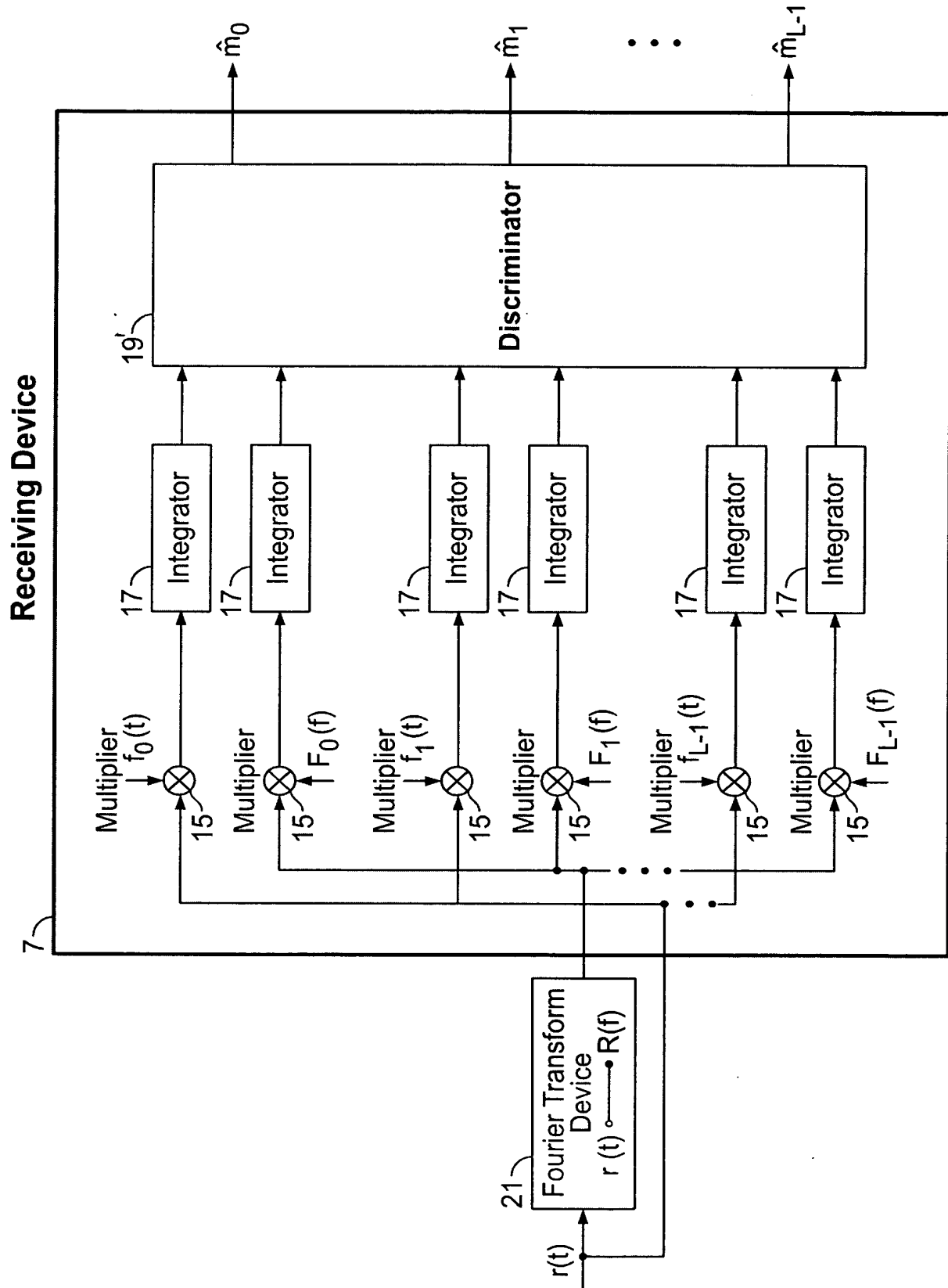


FIG. 4

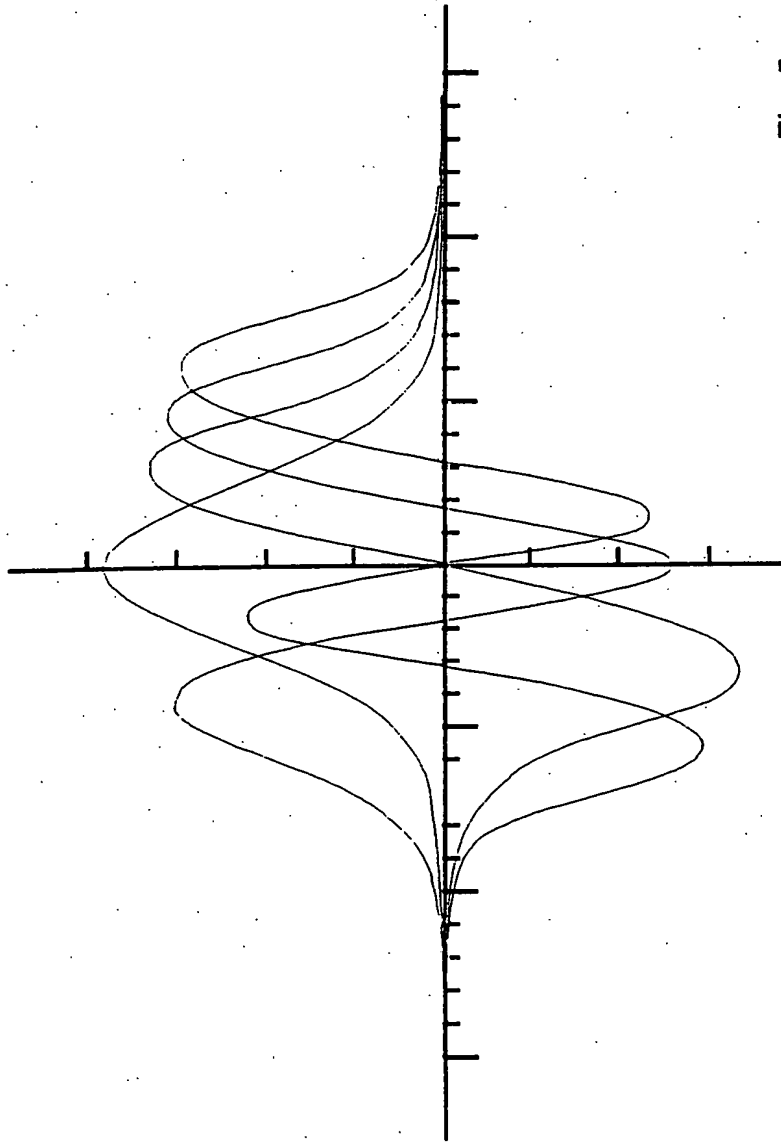


Fig. 5

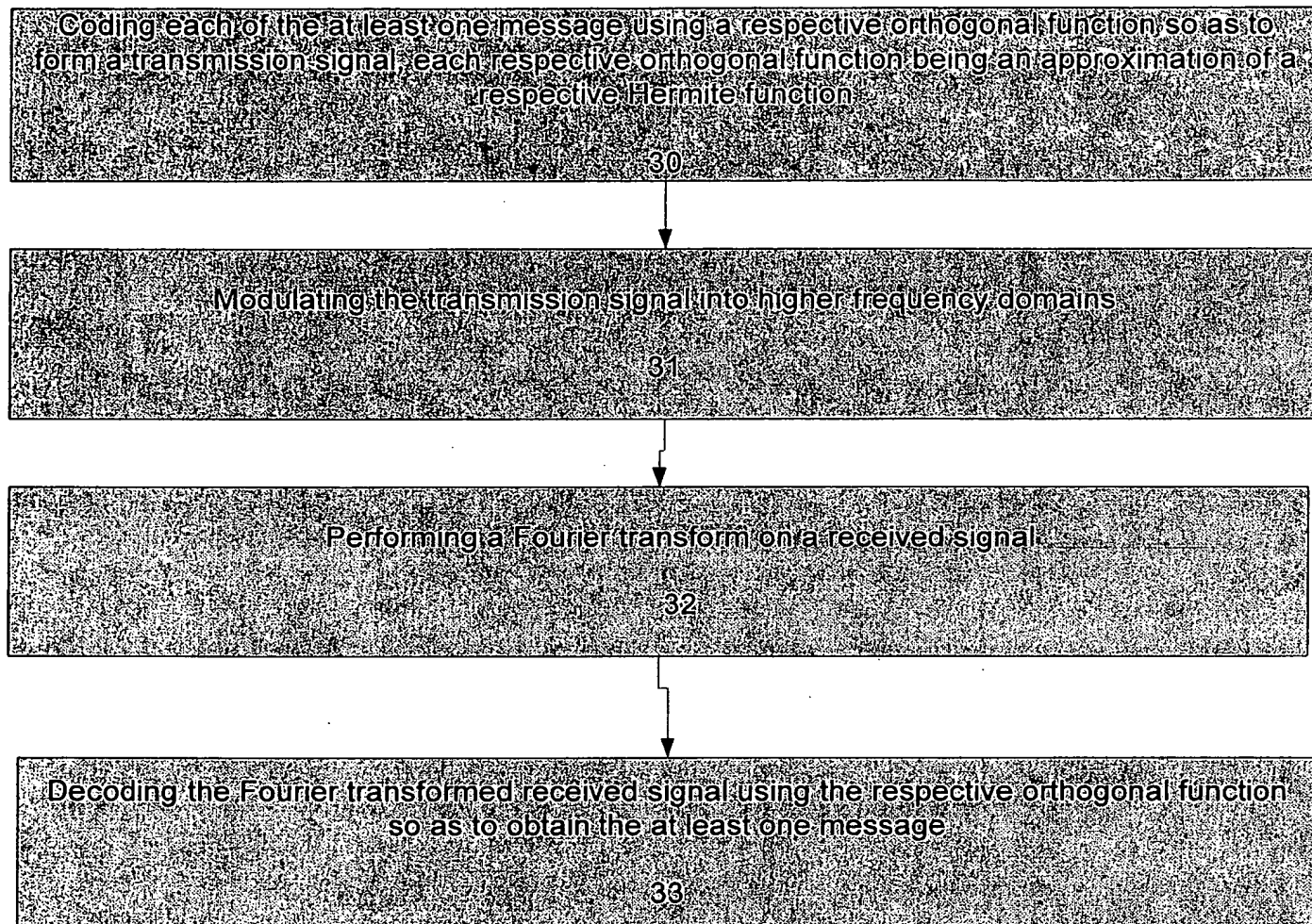


FIG. 6

Coding, using a coding device at a transmission side, each of the at least one message using a respective orthogonal function so as to form a transmission signal, each respective orthogonal function being an approximation of a respective Hermite function

34



Recovering, using a demodulation device at a receiving side, the at least one message from a received signal via a decoding using the respective Hermite function, the demodulation device including a Fourier-transform device for performing a Fourier transform on the received signal before the decoding, and including a respective first decoder unit corresponding to each of the at least one message, each respective first decoder unit including a respective first multiplier, a respective first integrator and a respective first discriminator connected in series, wherein each respective first decoder unit is for decoding the received signal in a time domain and wherein the demodulation device further includes a respective second decoder unit associated with each respective first decoder unit, each respective second decoder unit being for decoding the received signal in a frequency domain and including a respective second multiplier, a respective second integrator and a respective second discriminator connected in series

35

FIG. 7

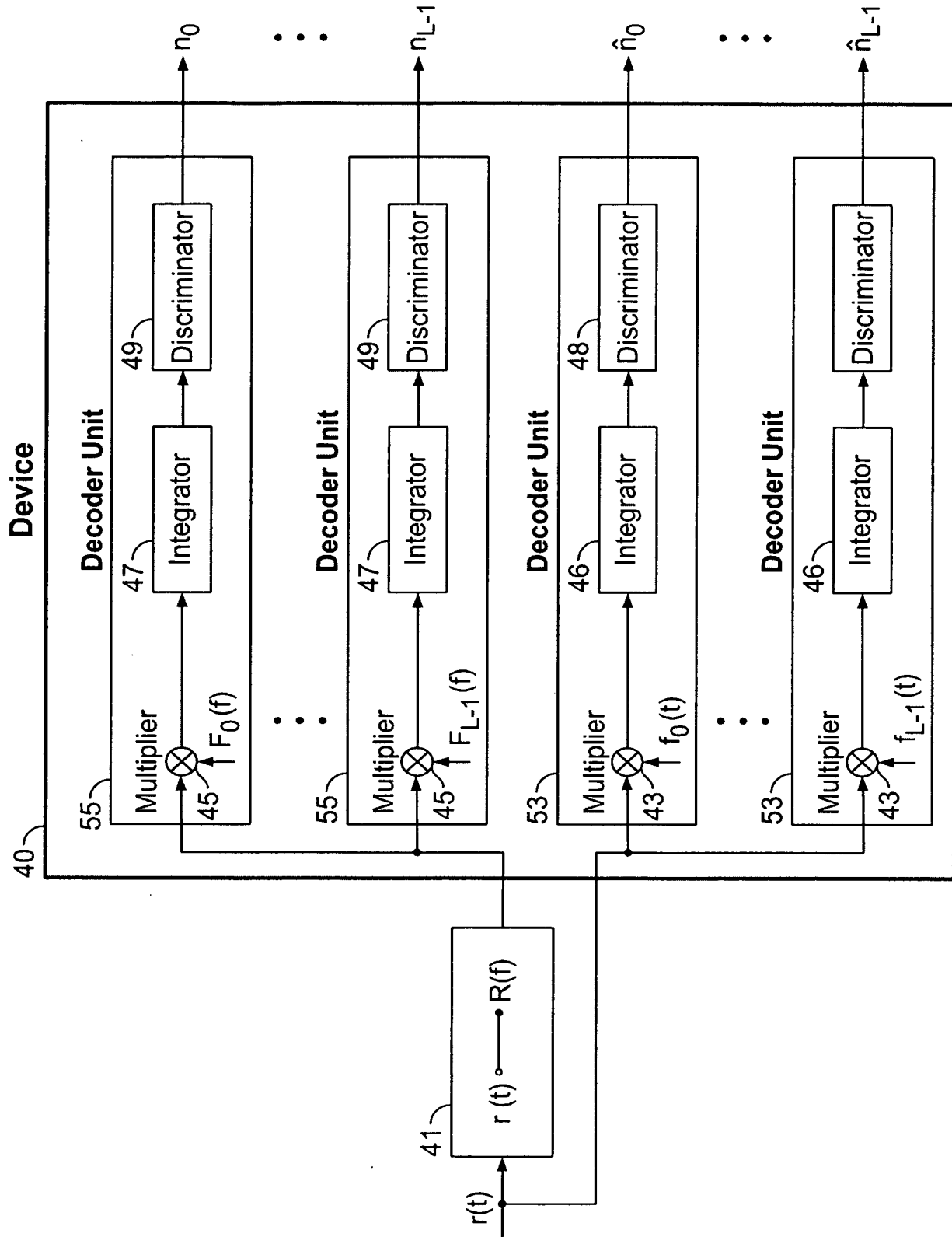


FIG. 8